

UNITED STATES DISTRICT COURT  
EASTERN DISTRICT OF MISSOURI  
EASTERN DIVISION

IRIDEX CORPORATION,	)	
	)	
Plaintiff,	)	
	)	
vs.	)	Case No. 4:05CV1916 CDP
	)	
SYNERGETICS, INC.,	)	
	)	
Defendant.	)	

**MEMORANDUM AND ORDER**

Plaintiff Iridex Corporation sells medical lasers, and it owns a patent covering a fiber optic connector system for use with the lasers. Synergetics, Inc. sells probes and connectors for use with Iridex's lasers, and Iridex contends that these products infringe the connector patent. This order deals with the parties' cross-motions for summary judgment regarding infringement. Later orders will deal with the parties' arguments regarding invalidity and with the other pending motions. Because there is no genuine issue of material fact with regard to any infringement issue, summary judgment is appropriate.

Iridex is entitled to partial summary judgment because Synergetics' original connector system infringes certain patent claims. Synergetics, however, is also entitled to partial summary judgment because its original connectors do not infringe other claims, and its new system does not infringe any of the claims. More

specifically, and for the reasons that follow, I conclude that Synergetics' original connector systems do not infringe claims 1 through 4 or 18 through 21. The systems do infringe claims 5, 7, 22 and 24, however, and when they are attached to an Iridex laser, they also infringe claims 8 through 10 and 12 through 16. Synergetics' new connector system does not infringe any of the patent's claims, either directly or under the doctrine of equivalents.

### **Background**

Both Iridex and Synergetics, Inc. are companies that manufacture ophthalmic medical laser instruments. Since February 4, 1992, Iridex has been the holder of United States Patent No. 5,085,492 (the '492 patent), which relates to an optical fiber connector system that determines whether a probe is properly attached to a laser and identifies what kind of device is attached.

Synergetics makes and sells a connector system that allows its probes to be used with Iridex's lasers. The original Quick Disconnect connector system consists of two parts: a Quick Disconnect adapter portion and a Quick Disconnect BNC connector portion (the Quick Disconnect probe).<sup>1</sup> Synergetics sells the connector system for use with the Iridex laser and with other lasers. Iridex alleges that the

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<sup>1</sup>There are several versions of the original connector, but Synergetics has agreed that any differences among them are not material to the infringement analysis, so I have considered them collectively and refer to them all as the original connector systems.

combination of the Quick Disconnect probe and the Quick Disconnect adapter infringes claims 1 through 5, 7, 18 through 22, and 24. Iridex alleges that when the system is attached to an Iridex laser the combination also infringes claims 8 through 10 and 12 through 16. Iridex alleges that the sale of the original Quick Connector adapter alone contributorily infringes claims 1 through 5, 7, 18 through 22 and 24.

Following the filing of this suit, Synergetics designed a new connector system that uses two separate connectors. Iridex asserts that Synergetics' new connector system infringes claims 1-3, 8-10, 13-15, and 18-20 under the doctrine of equivalents.

I held a Markman hearing earlier in the case, but when the parties filed their motions for summary judgment, it became apparent that they were still arguing about various claim terms. I therefore ordered them to address claims construction again at the summary judgment hearing, and they did so. The briefs in this case are voluminous, and there is no reason for me to address each and every argument raised by the parties, although I have read and fully considered all of those arguments. Instead, I will focus here on the disputes that make a difference to the summary judgment issues. These rulings are based on all the briefs, evidence, and arguments presented by the parties.

## **Discussion**

Summary judgment is appropriate only if there are no genuine disputes of material fact and the moving party is entitled to judgment as a matter of law. Anderson v. Liberty Lobby, Inc., 477 U.S. 242, 249 (1986); Celotex Corp. v. Catrett, 477 U.S. 317, 322 (1986). Iridex bears the burden of establishing a prima facie showing of infringement as to each accused device. L&W, Inc. v. Shertech, Inc., 471 F.3d 1311, 1318 (Fed. Cir. 2006). A determination of infringement is a question of fact, and so summary judgment may only be granted when there is no genuine issue of material fact and no reasonable jury could find that every limitation recited in the properly construed claim either is or is not found in the accused device. Bai v. L&L Wings, Inc., 160 F.3d 1350, 1353 (Fed. Cir. 1998).

### **1. The Original Quick Disconnect Connector System**

#### **a. Claims 1-4 and 18-21**

Synergetics' original Quick Disconnect connector system does not infringe claims 1-4 and 18-21 of the patent. Each of those claims requires an engagement member that is "configured for positive mechanical and electrical engagement with an engagement portion of the complementary connector *so as to maintain the*

*holding means registered to the complementary connector”* (emphasis added).<sup>2</sup> The parties agree that in the patent, the engagement member is a cable nut. Iridex asserts that the internal threading in Synergetics’ connector devices is the engagement member, and the undisputed facts support this conclusion. The parties stipulated at the Markman hearing that the holding means was the ferrule, and it is undisputed that Synergetics’ device contains this element. Therefore, the internal threading must “maintain the holding means [ferrule] registered to the complementary connector.” There is no doubt that the internal threading is necessary to maintain the ferrule registered to the complementary connector in the laser, but the threading alone is not sufficient to do this.

In Fig. 3 of the ‘492 patent, the engagement member alone maintains the ferrule in place because the engagement member is a cable nut with a neck or narrowed portion at the rear that contacts the ferrule and keeps it from sliding away from the complementary connector. Unlike the engagement member in the ‘492 patent, however, the internal threading in Synergetics’ device is not sufficient to keep the ferrule registered to the complementary connector. Synergetics’ device has additional elements that are necessary to maintain this connection, specifically the

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<sup>2</sup>Synergetics’ motion argues that this applies to claims 8-12 as well, but those claims do not contain this element, so the absence of this element does not save Synergetics from infringing those claims.

springs and bushing. While the threading is necessary to keep the ferrule inserted into the female SMA-style bushing and the threading keeps the connector system from falling off, without the springs and the bushing the ferrule can move completely out of the complementary connector. Therefore, the original connector systems do not have an engagement member that meets the requirements of claims 1-4 and 18-21, because the engagement member in Synergetics' system does not "maintain the holding means registered to the complementary connector." At the hearing Iridex argued that this element is met because these claims are open-ended "comprising" claims, but the springs are not a permissible *additional* element, instead they are necessary to maintain the required connection. Accordingly, the original connector systems do not infringe claims 1-4 and 18-21, and I will grant summary judgment to Synergetics on the issue of infringement on these claims.<sup>3</sup>

**b. Claims 5, 7-10, 12-16, 22 and 24**

The original connector systems do infringe claims 5, 7-10, 12-16, 22, and 24, however, so Iridex is entitled to partial summary judgment on its claim of patent infringement. Each and every element of these claims is present in Synergetics'

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<sup>3</sup> Synergetics also argues that it does not infringe claims 1-4 and 18-21 because the contact element is not mechanically supported by the engagement member, but I disagree with this argument. I also disagree with its argument that the engagement member is not "connected to" the holding means. Although these arguments are meritless, that makes no difference, given that another element is missing.

original connector systems. Synergetics does not dispute that some of the elements are present, and so I will discuss only those that are disputed.

Synergetics' arguments are something of a moving target, but the most current reasons it urges for non-infringement (and the remaining claims to which they apply) appear to be: (1) its system does not contain a "means for establishing a defined value of electrical resistance between the connector portion and the shell portion" (all claims); (2) its connector systems do not have an SMA-style male connector (claims 5-7, 22-24) ; and (3) they do not contain a "means for mounting the second contact element relative to the second engagement member so that the first and second contact elements make electrical contact with each other *when* the first and second engagement members are mechanically engaged with each other" (claims 8-10, 12-17, emphasis added by Synergetics). None of these arguments raises a genuine issue of material fact, and therefore, Iridex is entitled to judgment as a matter of law that Synergetics' original connector systems infringe claims 5, 7-10, 12-16, 22 and 24.

First, Synergetics' original connector systems have a "means for establishing an electrical characteristic between the engagement member and contact element." Synergetics argues that its products do not have this element because the resistor is not physically located *between* the thread/rings and the BNC connector. In its reply brief Synergetics also stated this argument as being that the "resistor is not directly

connected between” the engagement member and contact element. This argument, however it is stated, is directly contrary to my claims construction. At the Markman hearing I recognized that the resistor could be physically located anywhere, so long as it provided the electrical connection between the engagement member and contact element and thus generated the appropriate electrical characteristic between the two. Because the relationship between the resistor, the engagement member, and the contact element is an electrical relationship, the physical location of the resistor is irrelevant so long as the resistor electrically remains in the same position. Synergetics lost this argument at Markman, where it urged a construction of “a resistor mounted in the region formed between the engagement member and contact element.” (Docket # 34, p. 4). I rejected the argument then, and Synergetics’ attempt to reraise it in a different form is similarly unavailing. The undisputed facts show that Synergetics’ original connector systems have a resistor that provides the electrical connection between the engagement member and contact element, and so they contain this claim element.

Next, Synergetics argues that its original connector systems do not have an SMA-style male connector because its connectors do not have back posts and because the threads and ferrule are in two different parts. These arguments also fail to raise a genuine dispute of material fact. At the summary judgment hearing,

counsel for Synergetics admitted that back posts are not necessary for an SMA-style connector and agreed with Iridex that an SMA-style male connector is a “cable nut rotatably mounted to a ferrule.” Synergetics’ device contains a ring with internal threading, rotatably mounted to a ferrule. Either directly or under the doctrine of equivalents this qualifies as the “SMA-style male connector portion including a ferrule . . . and a cable nut rotatably mounted on said ferrule.” The parts that Synergetics’ products do have perform substantially the same function, in substantially the same way, to accomplish substantially the same result as the claimed element. See Warner-Jenkinson Co. v. Hilton Davis Chem. Co., 520 U.S. 17, 35 (1997). In fact, they actually perform exactly the same function, in exactly the same way, to achieve exactly the same result, although they admittedly start out in more pieces than Iridex’s does. Synergetics’ argument that the threads/metal ring and ferrule cannot constitute an SMA-style connector because they are in two different parts is the same argument I rejected at the Markman hearing. There is no requirement that the connector portion be a single or unitary device. Therefore, there is no genuine dispute that Synergetics’ original connector systems contain this element.

Finally, Synergetics’ connector system has a means for mounting the second contact element when the first and second engagement members are engaged when

its connector system is connected to the Iridex laser. Synergetics originally admitted that this element was present in a joint filing provided to this Court during the Markman process, because it admitted that the element was present in Iridex's laser. On summary judgment, however, Synergetics has argued that the element was not present at all times, and that therefore there could be no infringement: "6. What Iridex calls the contact element does not make contact with the complimentary connector contact element WHEN what Iridex calls the engagement member (part of the adapter) is connected to the complimentary connector." (Docket # 197 at p 4-5). This argument directly contradicts Synergetics' position at Markman. (See Joint Claim Construction Statement, Docket # 34, p. 6). As Iridex shows, however, this element is only required in those claims that Iridex asserts Synergetics is infringing when its connector system is attached to the Iridex laser (8-10 and 12-16).

The undisputed facts show that the combination of Synergetics' original connector system with the Iridex laser contains this element. Synergetics BNC shell contacts the wire loop on Iridex's laser while it is connected to the engagement member. While Synergetics is correct that the engagement member will be hooked on first as part of the adapter portion, and then the BNC connector portion will be attached later, that does not mean that both the engagement member and the connector will not be engaged at the same time as the contact element. Both will

always be there when the device is in use, and Synergetics' products are not saved from infringing simply because all the elements might not be there when the laser is sitting in an empty room or otherwise not being used. When both portions of the connector system are connected to the laser, there is no dispute that this claim element is met.

As a result, there is no genuine dispute that Synergetics' original connector systems infringe claims 5, 7, 22, and 24, and that when they are connected to an Iridex laser, they also infringe claims 8-10 and 12-16. Therefore, I will grant summary judgment to Iridex on the issue of infringement by the original connector systems on these claims.

## **2. The New Connector System**

I will grant Synergetics' motion for summary judgment on Iridex's claim that Synergetics' new connector system infringes claims 1-3, 8-10, 13-15, and 18-20 under the doctrine of equivalents. First, the new connector system does not infringe claims 1-3 and 18-20 because the contact element is not mechanically supported by the engagement member. Next, the new connector system does not infringe claims 8-10 because it does not contain a "means for establishing a defined electrical characteristic between the first contact element and the first engagement member." Finally, it does not infringe claims 13-15 because it does not contain a "means,

associated with the first connector, for establishing a defined electrical characteristic between the first contact element and the first engagement member.”

In the new connector system, the contact element is not mechanically supported by the engagement member. At the hearing on February 8, Iridex advanced a definition of mechanically supported as “to hold up or serve as a foundation or prop for.” Even accepting this definition, there is no genuine dispute that the engagement member does not mechanically support the contact element in the new connector system. In this system, the engagement member and the contact element are only connected to each other by a wire. If mere connection were enough to meet the claim elements, than the inventors would have used “connected to” rather than “mechanically supported by” as they did elsewhere in the patent. Instead, the inventors choose to be more specific. Therefore, a wire connecting the contact element to the engagement member is not enough to mechanically support the contact element. Additionally, while moving the engagement member would also move the contact element, what actually holds up or serves as a foundation for the contact element is the Iridex laser, because in the new connector the contact element is attached separately to the laser.

This claim element is also not met under the doctrine of equivalents. Iridex would have to establish that the contact element and engagement member of the two-

piece connector system perform substantially the same function, in substantially the same way, to accomplish substantially the same result as the claimed element. See Warner-Jenkinson, 520 U.S. at 35. The doctrine of equivalents is applied to individual elements, not to an invention as a whole. Id. at 29. The doctrine is limited by the “all elements” rule and cannot be employed so as to vitiate an entire claim limitation. Ethicon Endo-Surgery, Inc. v. U. S. Surgical Corp., 149 F.3d 1309, 1317 (Fed. Cir. 1998).

The difference in the way that the device performs here is substantial. In the new connector system, the engagement member does not function in substantially the same way as the device described in the ‘492 patent. It does not provide mechanical support for the contact element, nor does it provide electrical engagement because it is made of plastic and does not conduct electricity. Therefore, I will grant Synergetics’ motion for summary judgment as to claims 1-3 and 18-20.

Next, the new connector system does not infringe on claims 8-10 and 13-15 because it does not contain a “means for establishing a defined electrical characteristic between the first contact element and the first engagement member” or a “means, associated with the first connector, for establishing a defined electrical characteristic between the first contact element and the first engagement member.” The electrical characteristic in the new system is between the contact element and the

ferrule, not between the contact element and the engagement member, because the engagement member is plastic. The claim elements require interaction between the contact element and the engagement member, but that simply does not exist in the new connector system. No equivalent for this claim element can possibly perform this function without an electrical connection involving the engagement member.

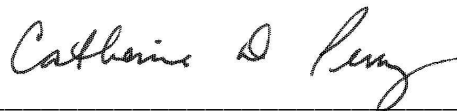
Iridex points out that the new connector system and the device described by the '492 patent both have components that create a circuit involving a resistor.

While this shows some similarity, there remains a substantial difference between the two. See Perkin-Elmer Corp. v. Westinghouse Elec. Corp., 822 F.2d 1528, 1534 (Fed. Cir. 1987) (stating that no claim may be drawn to a “concept.”). The doctrine of equivalents “is designed to do equity . . . it is not designed . . . to permit a claim expansion that would encompass more than an insubstantial change.” Perkin-Elmer Corp., 822 F.2d at 1532. To hold that this element is met under the doctrine of equivalents when the engagement member is not electrically engaged with anything would eviscerate this claim requirement. Iridex cannot expand its claim to include a means for establishing an electrical characteristic between the contact element and something other than the engagement member, when the claim specifically says engagement member. Therefore, the new connector system cannot infringe claims 8-10 and 13-15 under the doctrine of equivalents.

Accordingly,

**IT IS HEREBY ORDERED** that Synergetics' motion for summary judgment on non-infringement [#141] is granted to the following extent only: Synergetics is entitled to summary judgment that its original connector system does not infringe claims 1-4 and 18-21, and that its new connector system does not infringe any claim either literally or under the doctrine of equivalents. The motion regarding non-infringement is denied in all other respects; the motion as to invalidity remains under submission.

**IT IS FURTHER ORDERED** that Iridex's motion for summary judgment on infringement [#113] is granted to the following extent: Iridex is entitled to summary judgment that Synergetics' original connector systems infringe claims 5, 7, 22, and 24, and when they are connected to an Iridex laser, they also infringe claims 8-10 and 12-16. The motion is denied in all other respects.

A handwritten signature in black ink, reading "Catherine D. Perry". The signature is fluid and cursive, with the first name "Catherine" being more prominent than the last name "Perry".

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CATHERINE D. PERRY  
UNITED STATES DISTRICT JUDGE

Dated this 27th day of February, 2007.